GCC Energy

"Safety as a Value"

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GCC Energy, LLC
6473 County Road 120
Hesperus, CO 81326

September 18, 2019

State of Colorado
Division of Reclamation, Mining & Safety
1313 Sherman St., Room 215
Denver, CO 80203

Attn: Janet Binns, Environmental Protection Specialist

Re: King I Mine, C-1981-035
Stoner Engineering: Quarterly Inspection: Refuse Pile
3rd Quarter 2019

Dear Ms. Binns,

Please find enclosed a copy of Stoner Engineering's Quarterly Inspection report of the King I mine refuse pile/embankment for the 3rd quarter of 2019.

Please call Tom Bird at (970) 385-4528 x 6503 if you have any questions or comments.

Sincerely,

Tom Bird
Manager, Coal Services
GCC Energy, LLC

Stoner Engineering & Surveying
Engineering, Testing & Surveying

Date: September 17, 2019

To: Jordan McCourt
Project Coordinator
GCC Energy, LLC
6473 County Road 120
Hesperus, CO 81326
(970) 385-4528

From: Ryan Griglak, P.E.
Project Manager
Stoner Engineering & Surveying

Re: King Coal I – Quarterly Waste Pile/Embankment Inspection

On September 16, 2019, Ryan Griglak, P.E. visited the GCC Energy, LLC King I Mine site to conduct the quarterly inspection of the coal waste pile/embankment. Mr. Griglak, P.E. has conducted inspections for the placement of earthwork/embankment fill material for numerous commercial, residential and municipal projects in which buildings, roadways and parking facilities were installed over the placed materials.

The south treated water ditch (Reach 10) was found to be in generally good condition with the exception of a section of the channel where the runoff has eroded the existing bank and is escaping the channel section. Runoff from the adjoining hillside has historically resulted in some erosion along the existing channel section but, the additional of channel flows has noticeably increased the erosion in a relatively short amount of time (see Pic. 1). This section of the channel should be repaired to prevent channel flows from escaping and increasing the natural erosion of the adjoining hill side. The upper portion of the clean water ditch (Reach 1) has been relocated to accommodate the placement of additional waste material. The lower section has been connected via a portion of riprap channel (see Pic. 2). The remainder of the channel section has been excavated and is awaiting the installation of a shot-crete channel to prevent erosion along the sloe (see Pic. 3).

Waste material continues to be stockpiled at the base of the existing waste pile/embankment where it is collected and hauled to the top of the waste pile via excavator (see Pic. 4). The slope of the top of the existing pile is currently in excess of that defined in the Waste Bank Design produced by Don May, 1997. Specifically the cross slope from north to south across the top of the waste pile embankment. Now that the clear water ditch has been relocated up the hillside, waste material is being installed along the existing slope and the top of the existing pile should start to become more level with the placement of additional material.

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Stoner Engineering & Surveying
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The face of the embankment appeared to be in good condition as there were no signs of excessive erosion, instability or weakness (see Pic. 5). The outlet of the under-drain at the base of the waste pile has been exposed.

The only structure with any proximity to the embankment material is the old bath house which is no longer utilized and is abandoned. Personnel are only on-site to bring and/or place material on the embankment or for mine rescue training. The mine rescue training is performed on the north side of the site well away from the embankment material. The site is closed to the public and there is a locked gate at the entrance to keep the public out.

The waste pile has been and continues to be constructed and maintained as specified in the design approved by the Division of Reclamation, Mining & Safety. Potential hazards to life and property are minimal due to the fact that GCC has moved most of their operations to their King II facility.

Please let me know if you have any additional questions or concerns in regards to the issues that are discussed above.

Sincerely,

Ryan M. Griglak, P.E.
Project Manager

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Pic. 1 –Reach 10 location where runoff escapes existing channel section.

Pic. 2 – New riprap section of Reach 1 channel.

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Pic. 3 – Upper section Reach 1 channel awaiting shot-crete lining.

Pic. 4 – Waste material at base of embankment/waste pile collected via excavator.

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Pic. 6 – Face of waste pile/embankment in good condition.

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